

1,052,252.

UNITED STATES PATENT OFFICE.

WILLIAM L. HOOKS, OF MARS, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO S. EARL WALTERS, OF VALENCIA, PENNSYLVANIA.

ATTACHMENT FOR BROOMS.

1,052,252.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILLIAM L. HOOKS, a citizen of the United States of America, residing at Mars, in the county of Butler and State of Pennsylvania, have invented certain new and useful Improvements in Attachments for Brooms, of which the following is a specification, reference being had therein to the accompanying drawing.

My invention relates to improvements in attachments for brooms or similar articles, and has particular relation to devices adapted to moisten the broom straws or other material of which the article may be formed. Among the objects of my invention are to be found—(1.) To provide a device which can be removably secured to a broom or similar article, the attachment, when in position, acting also to support the straws as well as to produce the moistening operation. (2.) To provide a device for this purpose in which the moistening material is supplied through capillary attraction, with the feeder or feeders adjustable with respect to the moistening material to permit of a control of the feed. (3.) To provide a device for this purpose which can be readily placed in position or removed therefrom, and in which the parts are so connected as to provide for variations in the sizes of brooms to which the device may be attached.

Other objects of the invention are to provide a device of this character which is simple and efficient in operation, durable in construction, and which is relatively inexpensive in manufacture and maintenance.

To these and other ends, the nature of which will be readily understood as the invention is hereinafter disclosed, my invention consists in the improved construction and combination of parts hereinafter fully described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims.

In the accompanying drawings, in which similar reference characters indicate similar parts in each of the views, Figure 1 is a perspective view of a broom showing my improved attachment in position thereon. Fig. 2 is a top plan view showing one form of the invention and one form in which it may be attached to a broom handle, the latter being shown in section. Fig. 3 is a similar view, partly broken away, showing

a different way of mounting the container portion of the attachment on the handle. Fig. 4 is a vertical sectional view taken centrally through Fig. 3, this view showing the general arrangement of parts of the container employed in connection with either type of means for supporting the container on the handle. Fig. 5 is a perspective detail of the apron portion of the device, showing the feeders leading therefrom. Fig. 6 is a horizontal section of the upper end of the apron, showing the manner in which the feeder is connected so as to cooperate with the apron to moisten the latter. Fig. 7 is a perspective sectional view of the upper end of the apron and showing a slightly modified construction.

The present invention is primarily an attachment adapted to be removably mounted on a broom or similar article or utensil, and for the purpose of explaining the invention, I have shown it as mounted on a broom, the latter having its parts designated as follows: the handle, 10; the broom head or straws, 11, and the bridle, 12.

The attachment comprises a container for the moistening material, a dispensing or moistening construction, and connections between these parts for supplying the material from the container to the moistener.

The container may be of any preferred form, but I preferably employ the forms shown in the drawings, in which 13 designates the receptacle having its upper end preferably threaded, as at 14, and having its upper edge turned inwardly, as at 15, to form a flange.

16 designates a cap having complementary threads to engage the threads 14, said cap being preferably formed with an open center, the top of the cap being in the form of an annulus indicated at 17. The top of the can is preferably closed by a plate 18 which is supported on a gasket 19 supported by the flange 15, and being held in position by the annulus 17, the gasket 19 serving to provide a closed joint as well as an efficient seat for the top 18.

The container may be removably secured on the handle of the broom in any suitable manner. In the drawings I have shown the support as being provided in the form of spring clips 20, this being the preferred form, but, as shown in Figs. 3 and 4, I may eliminate the spring clip construction and

mount the container directly on the handle by permitting the handle to extend through the container, preferably employing a sleeve 21 within the container and through which the handle extends.

The apron may also be formed in any suitable manner, but I prefer to employ the construction shown in the drawings, in which 22 designates a piece of material such as fabric, or felt of suitable size, and having its upper edge located within a binding strip 23 the latter securing the feeder, indicated at 24 directly to the face of the apron 22, one way in which the binding may be provided being shown in Fig. 7 in which the strip 23 is bent upon itself to inclose the apron and at the same time place the feeder in close contact with the apron.

For the purpose of supporting the apron in position, I preferably employ a frame of suitable construction, one form being shown in Fig. 5 in which the body of the frame is shown as formed of a stiff wire extending through the strip 23, as at 25, then being bent and passed downwardly through suitable retaining strips 26 which form a pocket; the wire is then bent with a return bend and carried upwardly, as at 27, and terminates in an inward bend, as at 28, the latter forming hooks which are adapted to extend over the bridle 12.

As will be readily understood, the apron is simply drawn into the body of the straw portion from the open ends and the hooks sprung over the bridle from the outer sides, the wire being preferably resilient for this purpose. This places the apron with its feeder entirely below the bridle, and as the apron is of a proper length, its lower edge approaches the bottom of the broom, the position of such edge being above the bottom a distance to provide for a considerable wear to the broom, but sufficiently close to cause the moistening material to be delivered at a point where there is a considerable movement of the straws in the sweeping operation. In order, however, that the action may not be too violent, the apron is re-inforced at its side edges through the wire holder, as heretofore described, this construction affording a resistance against the movement of the apron to a material extent, leaving, however, the lower portion of the apron free to move with the broom straws. This construction thus aids in stiffening the broom to a certain extent and rendering it more serviceable, without, however, destroying the resiliency.

The feeding of the moistening material is provided by the feeder 24, which is preferably in the form of wicking or suitable material which will provide a movement of the moistening material by capillary attraction, the feeder having its ends carried by

a frame 30, which may be of spring wire, as shown in Fig. 1, or in the form of a spring strip bent to provide two legs 31 which are adapted to be secured to the feeder in suitable manner and at one or more points as may be desired. This securing may be in any preferred manner, one way being to provide barbs 32 which are adapted to engage in the feeder.

The ends of the feeder and the frame, are preferably passed through openings 33 formed in the top plate 18, the frame 30 acting as a means for adjusting the ends of the feeder 24 by movements of its legs 31 within the openings 33. The frame being of resilient material, it will be readily understood that there is a tendency of the legs to spread, and this spreading action causes the feeder to engage the edges of the openings 33 and retain the ends of the feeder in any desired position.

The feeder may be of any desired length, Fig. 1 showing a slack in the exposed portion to permit of the movement of the free ends axially of the container and also to permit of a ready insertion or withdrawal of the feeder and the frame 30 from the container when desired, especially where the construction is of the type shown in Figs. 3 and 4.

If desired, the feeder may be inclosed in a sheath 34 of suitable length and size, although this is not necessary.

I preferably employ a filling opening in the top 18, the closure therefor being shown at 35 in Fig. 3. This is especially desirable in the construction shown in Figs. 3 and 4, since it would be somewhat of a trouble to remove the top for the purpose of filling, it being necessary to remove the feeder and the frame 30 entirely from the container before the latter can be removed from the handle for the purpose of permitting the lid or top to be opened.

The operation will be thought to be obvious, but it may be stated that when the container is filled to a desired point, and it is desired to carry out the sweeping operation, the frame and feeder are moved downwardly so that the free ends of the feeder enter the moistening material to a suitable extent. As the feeder is of a material which provides for capillary action, the moistening material will be carried along the feeder until it reaches the apron 22 into which the material passes and is distributed or dispensed to the straw, being aided in this movement by the fact that the apron is located in position where the movements of the straws in the sweeping operation will aid in such dispensing. Obviously, the feeding of material will be as rapid only as the apron will take care of. When it is desired to stop the sweeping operation, the frame 30 is drawn upward

until the free ends of the feeder are out of contact with the moistening material, thus cutting off the capillary action and stopping the moistening operation; it will be also understood that the length of time the feeder remains out of contact with the moistening material does not affect its operation when the ends become immersed.

In placing the attachment in position, the apron is first secured in place and where the form of attachment as shown in Fig. 2 is employed it will be necessary only to slip the spring clip 20 over the broom handle. Where the form shown in Figs. 3 and 4 is employed the frame 30 and the feeder ends carried thereby are removed from the container and the latter is slipped over the handle to proper position after which the frame and feeder are again inserted.

If desired I may employ suitable eyes 36 on the container for the purpose of restricting the movement of the feeder, or if desired, I may provide closed channels through which the feeder may extend, it being understood that these structures do not prevent the movement of the feeder for the purpose of adjusting its ends into or out of the moistening material. The advantages of this connection are thought to be obvious, providing for simplicity and efficiency in operation, the ability to attach to any form of broom, the attachment being entirely independent of the broom structure, the durability, the practical impossibility of clogging, etc., and the relative low cost of manufacture and maintenance, providing a construction which is of a great advantage.

While I have herein shown and described one way in which my invention may be carried out, it will be readily understood that changes and modifications therein may be required or desired to meet the exigencies of use, and I therefore desire to be understood as reserving the right to make such changes or modifications therein as may be required or desired in so far as the same may fall within the spirit and scope of the invention as expressed in the accompanying claims.

Having thus described my invention, what I claim as new is:—

1. The combination with a broom, of a removable moistening attachment therefor comprising a container carried by the broom handle, a moistening apron supported by the broom bridle, within the broom head and below the plane of the bridle, and flexible connections between said parts for transferring the moistening material from the container to the apron.

2. The combination with a broom or similar article, of a removable moistening attachment therefor, comprising a container carried by the broom handle, a moistening apron supported by the broom bridle with the bridle, and connections between said

parts for transferring the moistening material from the container to the apron, said connections being adjustable to control the period of transferring action at will.

3. An attachment for moistening brooms comprising a container adapted to be removably secured to the broom handle, an apron adapted to be removably secured to the broom head and supported independently of the container, and a flexible connection between the container and the apron to transfer the moistening material from the container, to the apron, said connection being permanently secured to the apron to provide a surface contact therewith.

4. An attachment for moistening brooms comprising a container adapted to be removably secured to the broom handle, an apron adapted to be removably secured to the broom head and supported independently of the container, and a flexible connection between the container and the apron to transfer the moistening material from the container to the apron, said connections including a frame adapted to support the ends of the connection, said support being movable longitudinally of the container to permit positioning of the connection in or out of the moistening material of the container at will.

5. An attachment for moistening brooms comprising a container adapted to be removably secured to the broom handle, an apron adapted to be removably secured to the broom head and supported independently of the container, and a flexible connection between the container and the apron to transfer the moistening material from the container to the apron, said connections including a frame adapted to support the ends of the connection, said support being movable longitudinally of the container to permit positioning of the connection in or out of the moistening material of the container at will, said container having a removable top provided with openings adapted to permit of the entrance or removal of said frame to and from the interior of the container.

6. An attachment for moistening brooms comprising a container adapted to be removably secured to the broom handle, an apron adapted to be removably secured to the broom head and supported independently of the container, and a flexible connection between the container and the apron to transfer the moistening material from the container to the apron, said connection including a frame adapted to support the ends of the connection, said support being movable longitudinally of the container to permit positioning of the connection in or out of the moistening material of the container at will, said container having a removable top provided with openings adapt-

ed to permit of the entrance or removal of said frame to and from the interior of the container, said frame being resilient to cause the connection to engage the walls of the opening and retain the frame in its adjusted position.

7. An attachment for moistening brooms comprising a container adapted to be removably secured to the broom handle, an apron adapted to be removably secured to the broom head and supported independently of the container, and a flexible connection between the container and the apron to transfer the moistening material from the container to the apron, said apron including a resilient element acting as the supporting means therefor and also to stiffen the apron.

8. An attachment for moistening brooms comprising a container adapted to be removably secured to the broom handle, an apron adapted to be removably secured to the broom head and supported independently of the container, and a flexible connection between the container and the apron to transfer the moistening material from the

container to the apron, said apron including a device for retaining the connection in facial contact with the apron and an element positioned by said device and acting to support the apron on the broom head and stiffen the apron, said element being resilient.

9. An attachment for moistening brooms comprising a container adapted to be removably secured to the broom handle, an apron adapted to be removably secured to the broom head and supported independently of the container, and a flexible connection between the container and the apron to transfer the moistening material from the container to the apron, said connections providing a transference of the moistening material by capillary attraction.

In testimony whereof I affix my signature in the presence of two witnesses.

WILLIAM L. HOOKS.

Witnesses:

KARL H. BUTLER,
MAX H. SROLOVITZ.

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